

DIAGNOSIS

PRODUCT OVERVIEW



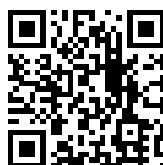
WABCO

DIAGNOSIS

PRODUCT OVERVIEW

Edition 10

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WABCO

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Version 1 / 02.2015(en)
815 010 037 3

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1 List of abbreviations

ABBREVIATION	MEANING
ABS	Anti-Lock Braking System
LSV	Load Sensing Valve
AMT	Automated Manual Transmission
APS	Air Processing System
ASR	Anti-Slip Regulation
ATC/ATR	Automatic Temperature Control
CAN	Controller Area Network; asynchronous, serial bus system for networking control units in vehicles
CBU	Central Brake Unit
CDC	Cruise Distance Control
E-APU	Electronic Air Processing Unit
EBS	Electronic Braking System
ECAS	Electronically Controlled Air Suspension
ECU	Electronic Control Unit
ENR	(German: Elektronische Niveauregelung); Electronic Levelling Control
EPB	Electro-Pneumatic Brake (equivalent to EBS)
EPS	Electronic Power Shift or Electro-Pneumatic Shift control
ESC	Electronic Stability Control
ESAC	Electronic Shock Absorber Control
ETS	(German: Elektronische Türsteuerung); Electronic Door Control
HBS	(German: Hydraulisches Anti-Blockier-System); Hydraulic Anti-Lock System
HPB	Hydraulic Power Brake
ITC	Integrated Temperature Control (DAF terminology for ATC)
IVTM	Integrated Vehicle Tire Pressure Monitoring system for commercial vehicles
KWP K	Bidirectional single-wire bus for data transmission in the automotive industry
LDWS	Lane Departure Warning System
MTS	(German: Modulare Tür-Steuerung); Modular door control for buses
OBD	On-Board Diagnostics
ODR	Operating Data Recorder
PC	Personal Computer
SAE	Society of Automotive Engineers
SD	Software Diagnosis
TEBS	Electronic Braking System for Trailers
TECAS	Electronically Controlled Air Suspension for Trailers
TRR	Trailer Router / Repeater
USB	Universal Serial Bus
VCS	Vario-Compact-System; compactly structured ABS for trailers
ZBR	(German: Zentraler Bord-Rechner); Central board computer

2 General notes

Disclaimer

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Symbols used



Important instructions, information, or tips that you should always observe.



Reference to information on the Internet

- Action step
- ⇒ Consequence of an action
- List

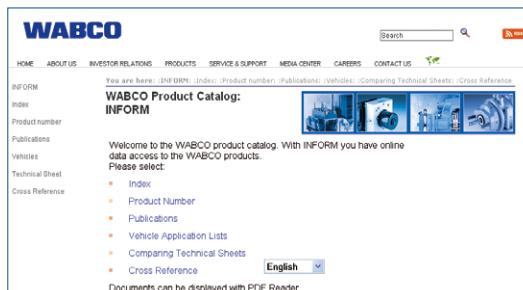
Technical documents

The online product catalogue INFORM provides you with convenient access to the complete technical documentation. All documents are available in PDF format from the INFORM product catalogue. Please contact your WABCO partner for printed versions.

Please note that the publications are not always available in all language versions.



- Open the WABCO website:
<http://www.wabco-auto.com>
- Click the link *Product Catalogue INFORM*.



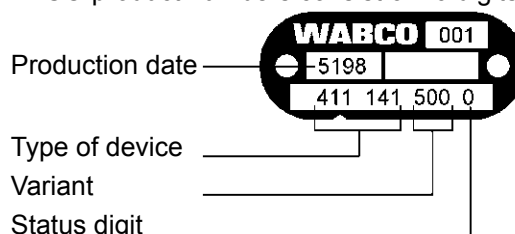
- Enter the publication number into the *Product Number* field.
- Click the *Start* button.
- Click the *Publications* radio button.

DOCUMENT TITLE	DOCUMENT NUMBER
Test Case 435 002 007 0 – Instructions for Inspections of the Air Braking System	815 XX0 035 3
Air braking systems in agricultural and forestry vehicles – fault finding	815 XX0 083 3
WABCO Ultrasonic Transmitter – Operating instructions	815 980 213 3
WABCO Mobile Test Bench - User manual	815 980 215 3
WABCO Leakage Detector – User manual	815 980 199 3
WABCO Compact Tester II	815 XX0 107 3
Load-Sensing Valve Tester 435 008 000 0	815 XX0 032 3

*Language code XX: 01 = English, 02 = German, 03 = French, 04 = Spanish, 05 = Italian, 06 = Dutch, 07 = Swedish, 08 = Russian, 09 = Polish, 10 = Croatian, 11 = Romanian, 12 = Hungarian, 13 = Portuguese (Portugal), 14 = Turkish, 15 = Czech, 16 = Chinese, 17 = Korean, 18 = Japanese, 19 = Hebrew, 20 = Greek, 21 = Arabic, 24 = Danish, 25 = Lithuanian, 26 = Norwegian, 27 = Slovenian, 28 = Finnish, 29 = Estonian, 30 = Latvian, 31 = Bulgarian, 32 = Slovakian, 34 = Portuguese (Brazil), 98 = multilingual, 99 = non-verbal

Structure of the WABCO product number

WABCO product numbers consist of 10 digits.



0 = New device (complete device); 1 = New device (subassembly)
2 = Repair kit or subassembly; 4 = Component part; 7 = Replacement device

General notes

Choose genuine WABCO parts

Genuine WABCO parts are made of high quality materials and are rigorously tested before they leave our factories. You also have the assurance that the quality of every WABCO product is reinforced by a powerful customer service network.

Because WABCO, as a tier one supplier, works with the world's leading Original Equipment Manufacturers, WABCO has the experience and scale to meet the most accurate production standards. The quality of every genuine WABCO part is supported by:

- Tooling made for serial production
- Regular sub-supplier audits
- Exhaustive end-of-line tests
- Quality standards below 50 PPM (parts per million defects)

A genuine WABCO part is as unique as your fingerprint. Accept no substitute.

Installing copy parts can cost lives – genuine WABCO parts protect your business.

WABCO additional services

The package you will get with a genuine WABCO part:

- 24 month product warranty
- Overnight delivery
- Technical support from WABCO
- Professional training solutions from the WABCO University
- Access to diagnostics tools and support from the WABCO Service Partner network
- Straightforward claims handling
- Plus, of course, the confidence that the Original Equipment Manufacturers' rigorous quality standards are met.

Your direct contact to WABCO

In addition to our online services, trained members of staff are there to help you at our WABCO Service Partners to directly answer any technical or business-related questions you may have.

Contact us if you need assistance:

- Find the right product
- Diagnostics support
- Training
- System support
- Order management

You will find your WABCO partners on the internet under www.wabco-auto.com. In the "Quick Access Link", click on "Advanced Location Finder" (<http://www.wabco-auto.com/findwabco>)

3 Introduction

While previously a separate test device was required for the diagnosis of each system on the commercial vehicle, a PC or laptop with the corresponding Diagnostic Software is now sufficient for diagnosis.

There are two types of PC diagnostics:

- WABCO System Diagnostics (SD) for WABCO Systems & Components
- WABCO WÜRTH W.EASY® Complete Premium for Systems and Components by WABCO and other manufacturers.

Special testing equipment and accessories to round off the diagnostics range.

4 WABCO system diagnostics

WABCO System Diagnostics are special programmes with extensive functions which allow you to carry out diagnosis on all electronic WABCO systems.

For system diagnosis, you require:

- a standard PC or laptop, see chapter “4.2.1 PC / Laptop” on page 18.
- the WABCO Diagnostic Software, see chapter “4.1.2 Diagnostic Software overview” on page 10.
- a Diagnostic Interface, see chapter “4.2.2 Diagnostic Interface” on page 18.
- cable for the relevant vehicle type, see chapter “5 Cable for diagnosis” on page 19

4.1 Diagnostic Software

The rapid developments in vehicle technology and increasingly broad range of functions and sophisticated safety features mean that diagnostic software is required.

WABCO provides diagnostic software for all diagnosable WABCO systems and components in a variety of vehicles.

There are three ways to obtain the Diagnostic Software:

- as a USB stick version
- online as what is referred to a Single Download
- as part of a WABCO System Diagnosis Subscription.

For the diagnosis of multiple WABCO systems, WABCO offers you four different packages with Diagnostic Software, see chapter “4.1.2 Diagnostic Software overview” on page 10. These packages include numerous programs for a very economical price. You can download the most up-to-date version of the programs from the internet at any time and use them immediately.

WABCO System Diagnostics subscription has the advantage that you are quickly informed of new versions and you can obtain all newly developed Diagnostic Software at no extra cost.

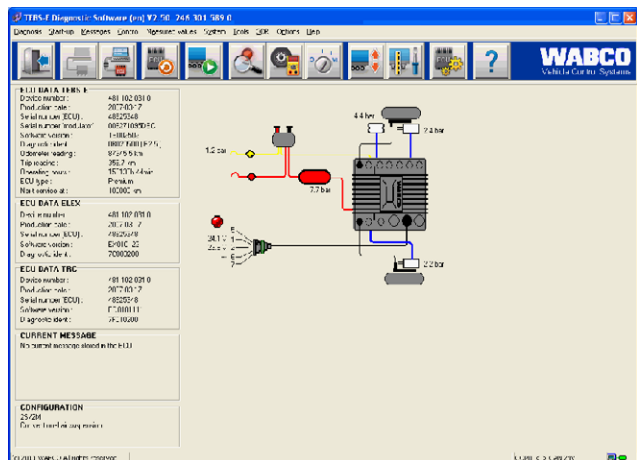
Diagnosis with the Diagnostic Software can be carried out by any user. If parameters need to be changed or a calibration needs to be carried out, authorisation (PIN) is required, see chapter “4.1.10 Extended authorisation (PIN)” on page 16.

The graphic user interface of the Diagnostic Software is clearly structured and intuitive to operate. Thanks to detailed repair information and circuit diagrams with measured values, successful diagnosis and repair is made easy and fast.

There are examples of the diagnostic software below, with extracts from the software for the trailer EBS E system.

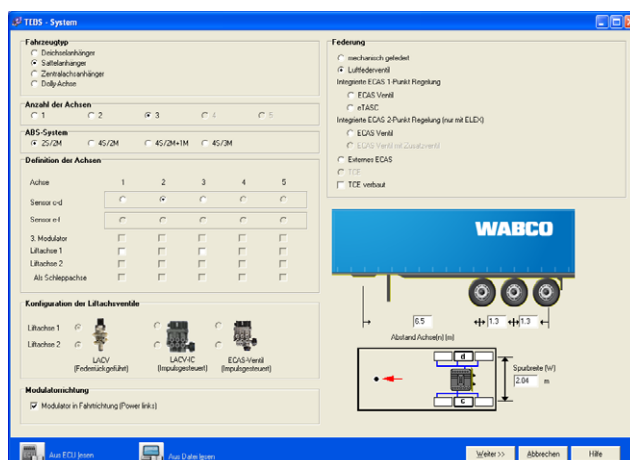
WABCO system diagnostics

MAIN MENU



- ECU data
- Displaying the current diagnostic memory
- System configuration
- Current measured values

SETTING POSSIBILITIES



- Selection of vehicle type
- Axle definition
- Configuration of the lifting axle valves
- Selection of suspension

4.1.1 Ordering the Diagnostic Software

Login / Registration at myWABCO



- Start your browser and enter the following Internet address:
<http://www.wabco-auto.com/mywabco>

Welcome Register WABCO-Auto.com

WELCOME

INFORMATION:

Welcome to myWABCO!

It's your new, personal "dashboard" of WABCO's online services for Aftermarket Partners.

WABCO has improved your registration process. Now you can access the tools you need faster!

Through myWABCO, you can directly access your WABCO diagnostic subscription, WABCO E-Learning, Webshop and eQuality.

Soon, more online services will be connected. Using myWABCO, you will be able to access all WABCO online services.

Your access to myWABCO requires a one-time registration. It takes only 3 minutes!

Thank you in advance for your cooperation.

Please contact us with any questions.

LOGIN

If you are an already registered user for Diagnostic Software download or E-Learning, please complete a new registration with a new user name. Note: please use your old Diagnostic Software and E-Learning access data in the third step of your registration to the myWABCO. If you don't have login data for the new myWABCO service, please complete a new registration.

Username:

Password:

[Forgot password? | Forgot Username? | New Registration](#)

Step by Step instruction

- If you already have a user account, log in with your user name and password.
- If have not set up a user account for myWABCO yet, you must register one first.

! You will find detailed instructions for registration by clicking on the *Step by Step Instruction* button.

- Click on the *New Registration* link and fill out the required fields.
 - ⇒ You will promptly receive an e-mail to confirm your e-mail address.
- Click on the link in this e-mail message to activate your user account.
- Log in to your myWABCO account with your user name and password.

Ordering the Diagnostic Software

- In the *Quick Access Links* area on the left, click on *Order Diagnostic Software*.
- If you receive a safety notice from your Internet browser now, choose the option to display the hidden objects that are unsafe.
 - ⇒ Your personal data is shown on the following screen.
- Click the *New order* button.
- Select the appropriate diagnostic software package or select a single software, see chapter “4.1.2 Diagnostic Software overview” on page 10.

4.1.2 Diagnostic Software overview



You can find the current Diagnostic Software overview on the internet at <http://www.wabco-auto.com/sd> => link *Overview product numbers*.

Order numbers for:

- Diagnostic programs 246 301 XXX 0
- USB stick versions: 446 301 XXX 0

The value for XXX can be found in the table below.

WABCO system diagnostics

Available software (as of: 20/01/2015)

SOFTWARE	LANGUAGE																							INCLUDED IN THE SOFTWARE PACKAGE:					
																								OVERALL	TRAILER	BUS	TOWING VEHICLE	LIGHT COMMERCIAL VEHICLE	OFF-HIGHWAY
	CS	DA	DE	EL	EN	ES	FI	FR	HR	HU	IT	JA	KO	NL	NO	PL	PT	BR	RO	RU	SV	TR	ZH						
ABS C	621		622		620	623		631	432		630	85		168	192			627		627	86	155	626	x		x	x		
ABS D Hydraulics	321	480	650		651	416		414		481	415			87		169	322			323	88	652		x			x	x	
ABS D +	604		625	665	628	633	133	635	488		634	466	417	89		640	134	426		639	90	636	637	x		x	x		
ABS E+	450	478	382		383	451	453	454	668	479	455			456	457	458	459	460		461	462	463	474	x		x	x		
ABS HPB			571		572									573										x		x	x		
ABS Hyd NG			470		471																			x					
ABS SAE	324		629		624	653		91	489		632			92		170	325	425		326	93	156		x		x	x	x	
APS-EAPU			380		384	390		392	673		391		397	393		211	396	210		212	394	395	398	x		x	x		
ATC CAN Standard	193	958	564		565	603	957	613	433		614			77		421	194			195	78	157		x		x			
ATC Coach	327		864		865	97		584	669		618			98		145	328			329	99	159		x		x			
ATC KWP Citaro Travego	196		560		566	616		94	492		617		95		171	197			198	96	158			x		x			
CAN Viewer	351	213	585		599	128		130			129			131			352			353	132	151		x	x	x	x		
CDC	348		583		656	63		64	493		65			66			349			350	67	68		x			x		
EBS 1C Asia			899		898							465												x			x		
EBS 3	228	234	220		221	222	235	224	232	236	223	231		225		233	229			230	226	237	238	x		x	x		
EBS Bus Standard	199	962	577		578	4	961	947	434	486	5			6		948	302			172	7	8	663	x		x			
EBS CBU MAN	886		880		882	884		881	491		883			891		887	330			888	889	160		x		x	x		
EBS EPB Bus	346		558		410	413		411	670		412			103		423	955			347	104	162		x		x			
EBS EPB MB Truck	331		517		547	519		559	362	361	518			101		363	332			333	102	161		x			x		
EBS Euro	334		548		545	894		554	366	365	555	469	381	9		367	335			336	10	11		x		x	x		
ECAS 4x2 S2000	181		860		863	842		841	435		840			105		135	182			183	106	147		x		x	x	x	
ECAS Bus A	59	482	851		861	875		876	490	483	877	467	449	14		70	61	427		870	15	16	869	x		x			
ECAS Bus Citaro	184		523		539	575		574	436		576			17		422	185			186	18	27		x		x			
ECAS CAN2	136	971	866		867	586	970	587	369	368	868	925	137	28		605	341			138	29	31	906	x		x	x		
ECAS ENR MB towing vehicle	187	484	521		874	873		871	371	370	872			74		372	188			139	75	76		x			x		
ECAS towing vehicle JED	538		529	175	858	856		855	437		857	464	174	62		537	173			995	69	862	568	x		x	x		
ECAS towing vehicle KWP K	189	485	524		850	854		852	374	373	853			32		375	190			191	33	34		x		x	x		
EPS	357		896		897	35		37	441		36			38		424	358	477		359	39	40		x		x	x		
Gateway			201		202																			x		x	x		
HBS AddOn-E	317		690		691	79		81			80	355		82		430	319			320	83	84	354	x			x	x	
HVAC			475		664																			x		x			
IVTM	303	973	730		732	733	972	731			734	601	41		107	304				305	42	43		x	x	x	x		
Modular AMT					952													476					953						
MTS	306		580		581	579		569	438	487	701	356		108		140	307			308	109	148		x		x			
ODR tracker	141	419	536		692	693	420	655			110			111		142	342			143	112	878		x	x				
OnGuardPlus			379																					x		x			
OnLane LDWS			472		473																			x		x	x		
SD Manager	494	495	100		386	496	497	498	499	641	642	643	644	645	646	647	648	649	658	659	660	661	662	x	x	x	x		
SmartBoard	153	405	609		610	971	152	916	667		113	164	154	114		144	309			165	115	163	431	x	x				
Trailer Central Electronic (TCE)	344	409	680		682	683	418	684	439		685			686		687	345			688	689	44		x	x				
TEBS D	546	550	540	996	542	544	606	541	608	895	543	905	602	551		552	557		58	553	549	694	60	x	x				x

SOFTWARE	LANGUAGE																				INCLUDED IN THE SOFTWARE PACKAGE:									
	CS	DA	DE	EL	EN	ES	FI	FR	HR	HU	IT	JA	KO	NL	NO	PL	PT	PT-			RU	SV	TR	ZH	OVERALL	TRAILER	BUS	TOWING VEHICLE	LIGHT COMMERCIAL VEHICLE	OFF-HIGHWAY
																		BR	RO											
TEBS E	597	956	588	666	589	590	360	591	915	178	592	388	179	593	448	594	318		180	595	596	598		x	x					x
TECAS	527	399	520	954	528	531	402	525	611	176	530	389		532		534	343		177	535	533	45		x	x					x
Trailer CAN Router/ Repeater (TRR)	310	149	923		924	116	150	118	205	206	117			119		207	311			312	120	166		x	x					
TrailerGUARD Telematics	313	403	918		919	46	404	48	208	209	47			49	985	387	314	428		315	50	51		x	x					
VCS	505	406	501		502	503	407	504	440		506			52		926	337			615	507	53	509	x	x					x
VCS II	783	408	508		510	513	607	511	612	376	512	654	638	582		121	122	468		782	781	514	780	x	x					x
ZBR2	338	203	700		657	123	204	125	378	377	124			126		145	339			340	127	167		x		x	x			

Language code according to ISO 639: cs = Czech, da = Danish, de = German, el = Greek, en = English, es = Spanish, fi = Finnish, fr = French, hr = Croatian, hu = Hungarian, it = Italian, ja = Japanese, ko = Korean, nl = Dutch, pl = Polish, pt(BR) = Portuguese (Brazilian), pt(PT) = Portuguese (Portugal), ro = Rumanian, ru = Russian, sv = Swedish, tr = Turkish, zh = Chinese

Packages

SOFTWARE PACKAGE	PART NUMBER	CONTENTS
Overall	246 301 900 0	Virtually all available programs for the diagnosis in towing vehicles, buses and trailers. Includes: 246 301 901 0, 246 301 902 0, 246 301 904 0
Trailer	246 301 901 0	The most common programs for diagnosis of WABCO systems and components in trailers.
Bus	246 301 902 0	The most common programs for diagnosis of WABCO systems and components in buses.
Towing vehicle	246 301 904 0	The most common programs for diagnosis of WABCO systems and components in towing vehicles.
Light commercial vehicle	246 301 804 0	The most common programs for diagnosis of WABCO systems and components in light commercial vehicles.
Off-Highway	246 301 805 0	The most common programs for diagnosis of WABCO systems and components in off-highway vehicles.

4.1.3 Installing the Diagnostic Software



- Start your browser and enter the following Internet address:
<http://www.wabco-auto.com/mywabco>

- Log in to your myWABCO account with your user name and password.
- In the Quick Access Links area on the left, click on *Download Diagnostic Software*.
- Select the required diagnostic software and the desired language.
- Click on the *show* button.
⇒ The download table is shown.
- Select the required Diagnostic Software from the download table by clicking the corresponding program.

- ⇒ The download starts automatically. You are prompted to select whether you want to save the program onto your PC or run it directly from the Internet.
- Select the option *Run the program from this location*.
- ⇒ Once download of the desired program is complete, the program file is unzipped to a folder of your choice or the default folder C:\wabco\download. The installation starts automatically after unpacking.

4.1.4 System Diagnostics (SD) Manager

With the SD manager one obtains a full overview of the installed WABCO control units in the trailer at a glance.

The new SD Manager enables an easy start in diagnosis.

Having selected the diagnostic socket, the fully automatic scan of the vehicle displays all the WABCO control units connected on this socket.

SD MANAGER



VEHICLE SCAN FOR WABCO CONTROL UNITS

Vehicle scan - Search installed WABCO ECUs: SV-CAN

ECU	Diagnostic Identifier	Current messages	Status	Diagnostic software
TEBS-E	08 02 03 00	0	System found, no messages found	Start diagnostic software
TEBS			Not available under SV-CAN	
VCD-S			Not available under SV-CAN	
VCD			Not available under SV-CAN	
SmartBoard	79 00 01 01	-	System found, message status not supported	Start diagnostic software
ELEX			ECU not found	
TRC	7F 01 01 00	-	System found, message status not supported	Start diagnostic software
TECAG			Not available under SV-CAN	
TTU	7B 01 01 00	3	System found, messages found	Start diagnostic software
TCE			Not available under SV-CAN	
TRP			Not available under SV-CAN	
IVTM	33 06 02 01	0	Several systems found, no messages found	Start diagnostic software

Following a short scan one obtains a complete overview of the detected control units as well as an initial assessment of their functional state. If events are stored in the diagnostic memory, these are displayed for all control units. Then it only takes the touch of a button to directly launch the diagnostic software.

Extreme simplification of diagnosis means that is no longer essential to know which program is started. The SD Manager carries out the preselection. This means that even staff who are not confronted with WABCO system diagnosis on a daily basis will have no problem with initiating focused and efficient fault finding. The SD manager avoids the laborious process of launching and trying out different WABCO diagnostic programs.

The SD Manager is available for download in myWABCO. It is a free component of all subscriptions, but it can also be purchased as a separate download for a fee.

4.1.5 Diagnostic Software Search Engine

The Diagnostic Software Search Engine will enable you to find the matching diagnostic software for every WABCO ECU.



- Start your browser and enter the following Internet address:
<http://abo.wabco.info/ecu2diag.php>
- Enter the part number of your ECU into the search field.
 - ⇒ In the response you will get the name and version of the WABCO Diagnostic Software to use.

4.1.6 Diagnostic Newsletter

Is the Diagnostic Software installed on your workshop computer up-to-date? It is easy to lose track when subscribing to the Diagnostic Software package which comprises over 40 programs.

The WABCO Diagnostic Newsletter informs you about:

- Changes to and updates for existing diagnostic programs
- Information about new diagnostic programs and new language versions

Use of this service is anonymous. Only information related to diagnostics is sent – no advertising mails.

The WABCO Diagnostic Newsletter is free of charge and can be used multiple times per company.

4.1.6.1 Registering for the WABCO Diagnostic newsletter



- Start your browser and enter the following Internet address:
<http://www.wabco-auto.com/sd>

- Click on *WABCO Diagnostic Newsletter*.
- Enter your e-mail address and select the action *subscribe*.
 - ⇒ Shortly afterwards you will receive an email with a link.
- Click on this link.
- Click the link *Edit settings*.
 - ⇒ On the page that opens you can define, which topics you would like to be informed about in future.
- Click individual fields to activate the newsletter for individual programs or activate complete columns or rows by clicking the language in the column header or name of the system.

! A green symbol indicates that the program is available in this language.

- Of course, you can also click on a red symbol. In this case, you will be notified immediately the program becomes available in this language.

A second click on the same field will deactivate your selection.

You can revise your personal newsletter settings by the same procedure any time you wish.

- If you no longer wish to receive the newsletter, select the function *unsubscribe*.

4.1.7 Licence agreement

The licence agreement is displayed automatically when a WABCO diagnostic program is installed.

You must accept this licence agreement if you wish to install a diagnostic program.



- You can also open the licence agreement via the following link:
<http://www.wabco-auto.com/sd> => link *Terms & Conditions*.

A Diagnostic Subscription lasts for one year. After the expiration of the year we remind you of the extension of the contract.

If you intend to install the Diagnostic Software on several computers, you need to purchase additional licences. To install on another PC, copy the *.exe file for

the Diagnostic Software you have downloaded from the internet to the other PC. You can now execute the program from this computer and install the Diagnostic Software.

4.1.8 Diagnostic Software activation

Following installation you can use the Diagnostic Software without restrictions for 10 days.

After these 10 days have expired, you must activate the Diagnostic Software.

Every time the program is started, you are informed of how long the program remains operational without activation.

! After activation, the Diagnostic Software is tied to the PC. This means the license is used up.

So you should only activate the diagnostic software on the PC on which it will be used and not, for example on an office PC for testing.

- To activate the software, click *Request activation codes*.

You now have two options to request an activation code:

- Online
- Via WABCO Activation@Web

Online

Online activation requires an internet connection on the computer on which the software is to be installed.

- Click on *Start Activation via Internet*.
- Once you have established an internet connection, click on *Activate now*.
 - ⇒ The message *Activation in progress...* appears and, after activation has been successfully completed, the message *Activation was successful*.
 - ⇒ After successful activation, the program is started.
 - ⇒ In the event that a connection could not be established, a message will appear listing the possible causes.

If you are unable to correct the cause, you can activate the software only via Activation@Web.

Activation@Web


Activation@Web is a continually available Internet portal that can generate activation codes at any time of day or night. For this purpose you only need a PC with an internet connection. You do not need to use the PC on which the software is to be installed for this.



- Start your browser and enter the following Internet address:
http://abo.wabco.info/software_activation.php
-

- Enter the required data either manually or via the service *Activation@Web via USB* described there.
 - ⇒ This service transfers the data using a USB stick. You will be given an activation code for the diagnostic software.
 - ⇒ Once the activation code has been successfully entered, the program is started.

WABCO Diagnostic Software Subscription - Software activation

View this page in: English 

Please select the software you wish to generate an activation key for and fill out all fields in the form below.
[You can find detailed instructions here.](#)

Software:

Company:

Name:

E-mail address:

Licence number:

Installation codes: 1
3
5

If one of the installation codes is missing, please enter "00000000" (8 zeros) in the concerning field.

Importing the activation code using a USB flash drive "Activation@Web via USB"

Please click the "Browse" button and then select the activation file on your USB flash drive containing your activation data.
Then click the "Generate activation code" button.

Step 1:

Step 2:

4.1.9 License version

You are provided with the license version (LIC) in the download area as well as in the WABCO Diagnostic Newsletter if there is a software update.

If there is a change in the version as compared to the version you have, the Diagnostic Software must be reactivated.

You will find the current licence version for all programs at the top section of the window in your program:



4.1.10 Extended authorisation (PIN)

Diagnosis with the WABCO Diagnostic Software can be carried out by any user.

If parameters are to be changed however, authorisation is required (PIN). You can obtain this PIN through relevant training or E-Learning at the WABCO University.





More information on WABCO University training and E-Learning courses can be found on the Internet at:
<http://www.wabco-university.com>

After you have completed a corresponding training or E-Learning course at the WABCO University, you will receive a PIN letter. This letter (in contrast to the previously valid licence letter which you needed to retrieve this data from the internet) contains your personal user ID as well as the Personal Identification Number (PIN) for WABCO Diagnostic Software. This PIN is used to enable enhanced functions of the Diagnostic Software and change the settings in the electronic control units.

You can continue to retrieve other PINs for older software versions from the internet.

Confidential, only for Kontakt Test

Your will need your personal user ID and the PIN for the PIN version of the respective diagnostic program to set parameters within the WABCO diagnostic software. This version is displayed as "PIN:" in the top line of the diagnostic program.

You will find more detailed information on the subject of PIN version in the market information:
<http://www.wabco.info/223>


Your user ID is: XXXXXX

Here are the PINs for the respectively most recent version of the software for which you have completed training:

Program name	PIN Version	PIN	PIN2
ABS C - PIN-Version: 211	211	XXXX	-
ECAS Truck JED - PIN-Version: 110	110	-	-
TCE - PIN-Version: 230	230	XXXX	-
ABS D Hydraulic - PIN-Version: 120	120	XXXX	-
ABS D+ - PIN-Version: 100	100	XXXX	-
EBS Bus Standard - PIN-Version: 120	120	XXXX	-

Should you require PINs for older PIN versions of a diagnostic program than the ones listed here, these are available on the internet at www.wabco.info/pin/.

You will need the following personal **licence number** to log in: XXXXXX

as well as the associated **confirmation number**: XXXXXX 

4.1.10.1 PIN version

You are provided with the PIN version in the download area as well as in the WABCO Diagnostic Newsletter if there is a software update.

If there is a difference in the new version as compared to the version that you are using, you will require a new PIN. You can obtain it through the respective training at the WABCO University.

You will find the current PIN version for all programs at the top section of the window in your program:




4.2 Hardware

4.2.1 PC / Laptop

The Diagnostic Software can run on any standard PC with Microsoft Windows XP operating system or higher.


There are no special requirements for the hardware. The PC must have a free USB port for the Diagnostic Interface however.

WABCO recommends the following laptop:

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 301 999 0		WABCO Laptop "Toughbook" <ul style="list-style-type: none">■ Suitable for the workshop: shock- and dirt-resistant■ On request it can also be supplied with the Diagnostic Software already installed.

4.2.2 Diagnostic Interface

The WABCO Diagnostic Interface Set is required to start a diagnosis of the electronic control unit:

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 301 030 0		Diagnostic Interface Set: <ul style="list-style-type: none">■ Diagnostic Interface■ USB connecting cable to PC/Notebook

The vehicle connection on the Diagnostic Interface matches the connection for the Diagnostic Controller and earlier versions of the diagnostic interface, permitting the continued use of connecting cables used in the past.

Depending on the WABCO system you wish to diagnose, you will require corresponding connecting cables, see chapter "5 Cable for diagnosis" on page 19.

The USB driver required to install the Diagnostic Interface is installed together with the WABCO SD software.



The USB driver and an installation manual can also be downloaded via the Internet: <http://www.wabco-auto.com/sd>.

You can still use the earlier versions of the Diagnostic Interface with serial connection (446 301 021 0) and USB interface (446 301 022 0).

5 Cable for diagnosis

5.1 Diagnostic accessory case

WABCO offers accessory cases matching the Diagnostic Software packages. These cases include the cables that are most commonly used.



Not all cables that WABCO offers are contained in the accessory case.


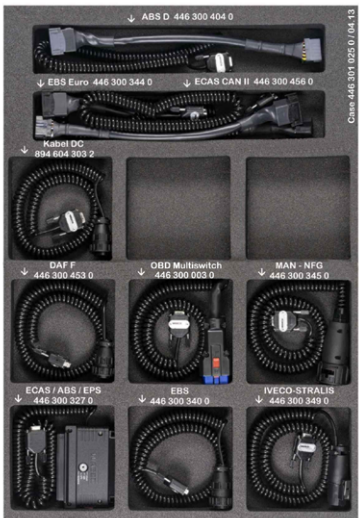
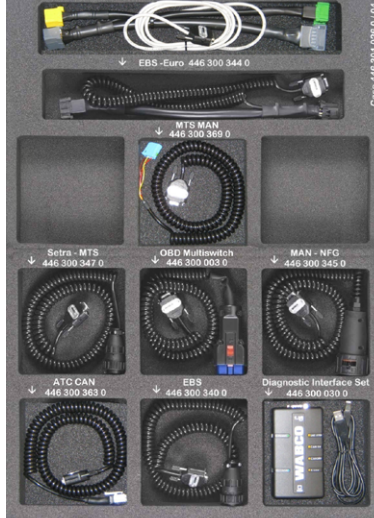
Having these accessory cases means you will always have the most important connecting elements between ECU and your PC on hand. Once the vehicle has been diagnosed, all cables can be stored in a manner where they are protected as well as easily identified. If you already own the individual components, you may also order the case without content.

Combinations of accessory cases and Diagnostic Software packages

	COMBINATION 1	COMBINATION 2	COMBINATION 3	COMBINATION 4
Diagnostic Software package	Complete 246 301 900 0	Trailer 246 301 901 0	Towing vehicle 246 301 904 0	Bus 246 301 902 0
Accessory Cases	Trailer 446 301 023 0 Towing vehicle 446 301 025 0	Trailer 446 301 023 0	Towing vehicle 446 301 025 0	Bus 446 301 026 0
Additional hardware	Any bus diagnostic cables that may be required		Diagnostic Interface Set 446 301 030 0	



Cable for diagnosis

Accessory Cases




TRAILER	TOWING VEHICLE	BUS
Part number: 446 301 023 0 (with content) 446 301 024 0 (without content)	Part number: 446 301 025 0 (with content) 446 301 019 0 (without content)	Part number: 446 301 026 0 (with content) 446 301 019 0 (without content)
		
Contents: Diagnostic interface set (USB) ■ 446 301 030 0 Diagnostic cable ISO 7638 (CAN 24 V) ■ 446 300 360 0 ■ 446 300 329 2 blue diagnostic socket K-line ■ 449 612 010 0 VCS I with connection socket OE ■ 449 615 010 0 VCS II with connection socket OE ■ 449 672 030 0 TEBS with connection socket OE ■ 446 300 348 0 yellow diagnostic socket CAN 5 V Connecting cable ■ 446 300 361 0 CAN adapter ISO 7638 Publication "Diagnosis – Product overview"	Contents: Diagnostic cable ■ 446 300 340 0 Mercedes ■ 446 300 344 0 EBS Euro (for Neoplan) ■ 446 300 345 0 (for MAN) ■ 446 300 349 0 EBS (for IVECO) ■ 446 300 404 0 ABS-D ■ 446 300 453 0 EBS (for DAF) ■ 894 604 303 2 ABS D/E (ISO 9141) Connection adapter ■ 446 300 327 0 EPS 35-pin OBD multi-switch cable ■ 446 300 003 0 Connecting cable ■ 446 300 456 0 ECAS Publication "Diagnosis – Product overview" Supplement for trailer accessory case 446 301 023 0. Does not contain Diagnostic Interface (can be ordered separately).	Contents: Diagnostic interface set (USB) ■ 446 301 030 0 Diagnostic cable ■ 446 300 340 0 (for Mercedes, EvoBus) ■ 446 300 344 0 EBS Euro (for Neoplan) ■ 446 300 345 0 MAN ■ 446 300 460 0 OBD-15-pin (for DAF, Scania, MAN) ■ 446 300 363 0 ATC + MTS CAN X204 ■ 446 300 368 0 MTS Y ■ 446 300 369 0 MTS (for MAN) ODB multiswitch cable ■ 446 300 003 0 Publication "Diagnosis – Product overview"

5.2 ABS/ASR



5.2.1 ABS B 4-channel (towing vehicle)

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 327 0		Connection adapter 35-pin (ABS, ECAS, EPS, Reserve) ■ Selector switch to position ABS ■ Ignition ON/OFF
446 300 314 0		Ground adapter 35-pin




5.2.2 ABS / ASR C 4-channel (towing vehicle)

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 327 0		Connection adapter 35-pin (ABS, ECAS, EPS, Reserve) ■ Selector switch to position ABS ■ Ignition ON/OFF
446 300 314 0		Ground adapter 35-pin
894 604 303 2		Diagnostic cable (ISO 9141)



5.2.3 ABS / ASR C 6-channel (towing vehicle)

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 319 0		Connection adapter 54-pin (ABS C 6-channel)
894 604 303 2		Diagnostic cable (ISO 9141)


5.2.4 ABS/ASR D/E (towing vehicle)

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 404 0		Connection adapter (ISO 9141)
894 604 303 2		Diagnostic cable (ISO 9141)
446 300 002 0		Diagnostic cable ABS E+ (UDS Y)
446 300 408 0		Connection adapter Basic (ISO 9141) ■ ABS D/E & KWP K-line
446 300 405 0		ABS D Full SAE Y
446 300 407 0		ABS D Basic SAE Y



5.2.5 ABS Vario C (trailer)

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 318 0		Connection adapter ABS Vario
446 300 329 2		Diagnostic cable blue diagnostic socket (K-line)


5.2.6 ABS Hydraulics

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 355 0		Diagnostic cable ABS hyd NG







5.2.7 ABS VCS I (trailer)

PRODUCT NUMBER	FIGURE	DESCRIPTION
449 612 010 0		Diagnostic cable with connection socket (length 1 m)
446 300 401 0		Diagnostic cable directly to test device (length 6 m) ■ Only for electronic control units with ISO supply. Electronic control units with a mixed supply can be tested only by using a separate diagnostic socket!




Cable for diagnosis

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 329 2		Diagnostic cable blue diagnostic socket (K-line)





5.2.8 ABS VCS II (trailer)

PRODUCT NUMBER	FIGURE	DESCRIPTION
449 615 010 0		Diagnostic cable with connection socket (length 1 m)
446 300 455 0		Diagnostic cable directly to test device (length 6 m) Only for electronic control units with ISO supply. For the premium versions 400 500 081/082/084 0 and the standard version 400 500 070 0. Electronics with a mixed supply can be tested only by using a separate diagnostic socket.
446 300 361 0		Diagnostic cable CAN between Diagnostic Interface USB (446 301 030 0) and diagnostic cable ISO 7638 (CAN 24 V)
446 300 329 2		Diagnostic cable blue diagnostic socket (K-line)
446 300 360 0		Diagnostic cable ISO 7638 (CAN 24 V)
446 300 470 0		CAN Converter <ul style="list-style-type: none"> ■ Connection between serial diagnostic interface (446 301 021 0) and CAN adapter. ■ Required if diagnosis is carried via ISO 7638 connection.

5.2.9 ATC / HVAC



PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 326 2		Diagnostic cable ATC (ATR)
446 300 317 0		Connecting cable 25-pin ATC (ITC)
446 300 363 0		ATC + MTS CAN diagnostic cable (X204)

5.3 CAN Viewer



PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 470 0		CAN converter <ul style="list-style-type: none"> ■ Connection between serial diagnostic interface (446 301 021 0) and CAN adapter. ■ Required if diagnosis is carried via ISO 7638 connection.
446 300 360 0		Diagnostic cable ISO 7638 (CAN 24 V)
446 300 458 0		Connecting cable for Diagnostic Software "CAN Viewer" 7-pin (ISO 7638)
446 300 459 0		Connection adapter CAN 15-pin (ISO 12098)
<p>Establishing cable connection to vehicle via ISO 7638 (7-pin)</p> <ul style="list-style-type: none"> ■ USB diagnostic interface (446 301 022 0 / 446 301 030 0) or serial diagnostic interface (446 301 021 0) with CAN converter (446 300 470 0) ■ Adapter (446 300 360 0) with connection cable (446 300 458 0) <p>Establishing cable connection to vehicle via ISO 12098 (15-pin)</p> <ul style="list-style-type: none"> ■ USB diagnostic interface (446 301 022 0 / 446 301 030 0) or serial diagnostic interface (446 301 021 0) with CAN converter (446 300 470 0) and connection adapter (446 300 459 0) 		

5.4 EBS



5.4.1 EBS EPB (Mercedes)

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 340 0		Diagnostic cable Mercedes
446 300 454 0		OBD diagnostic cable for Mercedes






5.4.2 EBS Euro (towing vehicle)

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 344 0		Y diagnostic cable EBS Euro
446 300 349 0		Diagnostic cable for IVECO Stralis

Cable for diagnosis



PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 453 0		Diagnostic cable for DAF
446 300 460 0		OBD diagnostic cable 15-pin for DAF, Scania, MAN

5.4.3 TEBS (trailer)



PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 329 2		Diagnostic cable, blue diagnostic socket (K-line), otherwise 449 672 030 0 required in addition.
446 300 360 0		Diagnostic cable ISO 7638 (CAN 24 V)
446 300 361 0		Diagnostic cable CAN <ul style="list-style-type: none"> ■ Connection between Diagnostic Interface USB (446 301 030 0) and diagnostic cable ISO 7638 (CAN 24 V).
446 300 470 0		CAN converter <ul style="list-style-type: none"> ■ Connection between serial diagnostic interface (446 301 021 0) and CAN adapter. ■ Required if diagnosis is carried via ISO 7638 connection.
449 672 030 0		Diagnostic cable with blue connection socket should no external diagnostic socket be installed.

5.5 ECAS


5.5.1 ECAS / ESAC (towing vehicle)

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 327 0 446 300 317 0		446 300 327 0: Connection adapter 35-pin (ABS, ECAS, EPS, Reserve) 446 300 317 0: Connecting cable 25-pin (ECAS) <ul style="list-style-type: none"> ■ Selector switch to ECAS ■ Ignition ON/OFF
446 300 311 0 446 300 314 0		446 300 311 0: Measurement adapter 25-pin (ECAS, ATC, only ECAS 4x2-A) 446 300 314 0: Measurement adapter 35-pin (ECAS, ABS)



Cable for diagnosis

PRODUCT NUMBER	FIGURE	DESCRIPTION
894 604 303 2		Diagnostic cable (ISO 9141)
446 300 456 0		Connection adapter (ECAS CAN II)


5.5.2 ECAS/ESAC (Mercedes).

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 340 0		Diagnostic cable Mercedes ■ For ECAS/ESAC ENR/ESR Mercedes-Benz, ECAS Mercedes-Benz, EvoBus


5.5.3 ECAS/ESAC (MAN, Iveco)

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 345 0		Diagnostic cable for MAN
446 300 349 0		Diagnostic cable for IVECO


5.5.4 ECAS (trailer)

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 329 2		Diagnostic cable blue diagnostic socket (K-line)



5.6 EPS (towing vehicle)

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 327 0		Connection adapter 35-pin (ABS, ECAS, EPS, Reserve) ■ Switch to position EPS ■ Ignition ON/OFF





Cable for diagnosis

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 314 0		Ground adapter 35-pin


5.7 ETS (bus)

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 301 200 0		Connection adapter 25-pin
446 300 311 0		Ground adapter 25-pin

5.8 IVTM

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 348 0		Diagnostic cable yellow diagnostic socket (CAN 5 V)
446 300 360 0		Diagnostic cable ISO 7638 (CAN 24 V) ■ Required only for trailers.
446 300 361 0		Diagnostic cable CAN ■ Connection between Diagnostic Interface USB (446 301 030 0) and diagnostic cable ISO 7638 (CAN 24 V). ■ Required only for trailers.
446 300 470 0		CAN converter ■ Connection between serial diagnostic interface (446 301 021 0) and CAN adapter. ■ Required if diagnosis is carried via ISO 7638 connection. ■ Required only for trailers.


5.9 MTS (Bus)

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 340 0		Diagnostic cable for 14-pin connection socket ■ For Mercedes-Benz, EvoBus





Cable for diagnosis

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 347 0		Diagnostic cable for 14-pin connection socket in footwell ■ For KK NF315 / SETRA
446 300 368 0		Y diagnostic cable MTS
446 300 369 0		Diagnostic cable MAN MTS (X203)


5.10 Lane Departure Warning System

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 365 0		Diagnostic cable LDWS (Lane Departure Warning System)


5.11 Trailer Central Electronic (trailer)

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 329 2		Diagnostic cable blue diagnostic socket (K-line)
446 300 360 0		Diagnostic cable ISO 7638 (CAN 24 V)
446 300 361 0		Diagnostic cable CAN ■ Connection between Diagnostic Interface USB (446 301 030 0) and diagnostic cable ISO 7638 (CAN 24 V).
446 300 470 0		CAN converter ■ Connection between serial diagnostic interface (446 301 021 0) and CAN adapter. ■ Required if diagnosis is carried via ISO 7638 connection.


5.12 ZBR (CVC) / Central Board Computer

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 345 0		Diagnostic cable for MAN

5.13 OBD Multiswitch


PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 003 0		<p>OBD cable with selector switch combines the following cables:</p> <ul style="list-style-type: none">■ MB Actros 446 300 454 0■ MAN / DAF 446 300 460 0■ Hyundai 884 058 874 0 <p>OBD cable has also connected the CAN lines.</p>

5.14 Solaris Bus

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 006 0		Solaris Bus

6 Testing devices and ancillary equipment





6.1 Test case for air braking systems

PRODUCT NUMBER	FIGURE	DESCRIPTION
435 002 007 0		Test case for air braking systems <ul style="list-style-type: none"> ■ Fast and precise testing of air braking systems in compliance with guidelines and directives. ■ Technical document, see chapter "Technical documents" on page 5.


6.2 "Agriculture" compressed air test kit

PRODUCT NUMBER	FIGURE	DESCRIPTION
435 002 011 0		"Agriculture" compressed air test kit <ul style="list-style-type: none"> ■ Testing of compressed-air procurement systems in tractors and air braking systems in agricultural and forestry trailers. ■ Technical document, see chapter "Technical documents" on page 5.


6.3 Pressure gauge

PRODUCT NUMBER	FIGURE	DESCRIPTION
453 002 000 0 453 004 005 0		Pressure gauge for dashboard <ul style="list-style-type: none"> ■ 453 002 000 0: max. 10 bar, Ø 60 mm, illuminated ■ 453 004 005 0: max. 10 bar, Ø 100 mm
453 004 007 0 453 004 009 0		Pressure gauge <ul style="list-style-type: none"> ■ 453 004 007 0: calibrated, max. 16 bar, Ø 100 mm ■ 453 004 009 0: calibrated, max. 25 bar, Ø 100 mm
453 004 012 0		Pressure gauge <ul style="list-style-type: none"> ■ calibrated, max. 16 bar, Ø 100 mm
453 197 000 0		Double pressure gauge for dashboard <ul style="list-style-type: none"> ■ max. 10 bar, Ø 60 mm, illuminated



Testing devices and ancillary equipment

PRODUCT NUMBER	FIGURE	DESCRIPTION
453 197 004 0		Double pressure gauge <ul style="list-style-type: none"> ■ calibrated, 2x 16 bar, diameter, Ø 100 mm
Depending on the vehicle size and the respective equipment, multiple pressure gauges can be used for measuring.		


6.4 Load Sensing Valve Tester

PRODUCT NUMBER	FIGURE	DESCRIPTION
435 008 000 0		Load Sensing Valve Tester <ul style="list-style-type: none"> ■ Testing and adjusting the load sensing valves on vehicles with air suspension systems. ■ Technical document, see chapter "Technical documents" on page 5.


6.5 Load Sensing Valve Adjuster

PRODUCT NUMBER	FIGURE	DESCRIPTION
899 709 109 2		Load Sensing Valve Adjuster <ul style="list-style-type: none"> ■ For adjusting the pneumatic LSV controller: Series 475 714 XXX 0 and 475 715 XXX 0
899 709 114 2		Load Sensing Valve Adjuster <ul style="list-style-type: none"> ■ For adjusting the pneumatic LSV controller: Series 475 721 XXX 0 and 475 723 XXX 0


6.6 Test plug ABS

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 007 316 0		Test plug ABS <ul style="list-style-type: none"> ■ For testing the function of the ISO 7638 interface on the towing vehicle (24 V). ■ Only vehicles with hitching mechanism.


6.7 Flashing code connector

PRODUCT NUMBER	FIGURE	DESCRIPTION
446 300 334 0		Flashing code connector <ul style="list-style-type: none"> ■ For VARIO Compact ABS with external diagnostic socket (flashing code read out without diagnostic controller).


6.8 WABCO Compact Tester II

PRODUCT NUMBER	FIGURE	DESCRIPTION
<p>446 300 430 0 (for towing vehicle, trailer and hydraulic ABS; also VCS II)</p> <p>446 300 005 0 (with Chinese front layout)</p>		<p>WABCO Compact Tester II</p> <ul style="list-style-type: none"> ■ Reading out the diagnostic memory of the WABCO ECU. ■ Connecting cable to the vehicle matches the one for the Diagnostic Interface. ■ Operated via 3 buttons. ■ Options: <ul style="list-style-type: none"> Read out / Delete the diagnostic memory Display of the system Special functions depending on system, e.g. system commissioning Functional test Read out total odometer reading Display of the ISS limit speed Resetting the service interval Enhanced fault display <p>Depending on the WABCO system you wish to diagnose, you will require corresponding connecting cables, see chapter “5 Cable for diagnosis” on page 19.</p> <ul style="list-style-type: none"> ■ Technical document, see chapter “Technical documents” on page 5.


6.9 WABCO Leakage Detector

PRODUCT NUMBER	FIGURE	DESCRIPTION
400 606 410 0		<p>WABCO Leakage Detector</p> <ul style="list-style-type: none"> ■ Quick and reliable search for leaks (using modern ultrasonic technology) in the air braking systems and the vehicle suspension system. ■ Technical document, see chapter “Technical documents” on page 5.

6.10 WABCO Ultrasonic Transmitter

PRODUCT NUMBER	FIGURE	DESCRIPTION
452 600 100 0		<p>WABCO Ultrasonic Transmitter</p> <ul style="list-style-type: none"> ■ Effective tool for the quick and straightforward identification of leaks and damage on vehicle seals. ■ Function: The ultrasonic transmitter is placed within an enclosed vehicle where it transmits constant ultrasonic signals. Using the WABCO Leakage Detector 400 606 410 0, the seals of the vehicle are inspected from the outside. Leaks can be identified at those spots on the vehicle where the WABCO leakage detector registers an increased noise level. ■ Technical document, see chapter “Technical documents” on page 5.

6.11 WABCO Mobile Test Bench

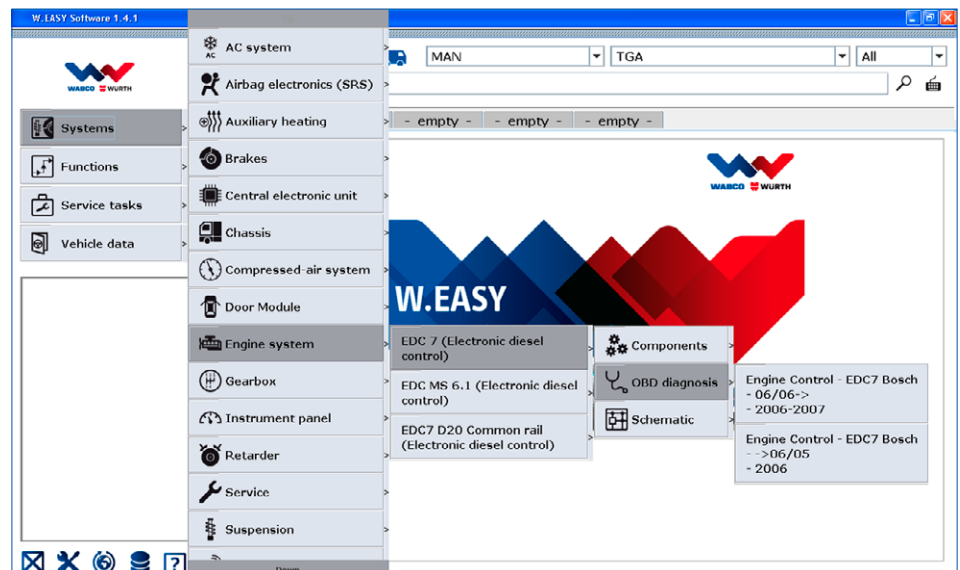
PRODUCT NUMBER	FIGURE	DESCRIPTION
453 197 003 0	 A portable test bench in a black carrying case. The case is open, revealing a control panel with six pressure gauges and various valves. A technical manual is visible in the lid. Several colored hoses (blue, yellow, green, red, white) are connected to the bottom of the unit.	<p>WABCO Mobile Test Bench</p> <ul style="list-style-type: none">■ Easy repair and testing of individual brake components.■ Easy vehicle tests.■ Precise function due to calibrated pressure gauges.■ Flexible application thanks to integrated rollers and extendible handle.■ Technical document, see chapter “Technical documents” on page 5.

7 W.EASY®

7.1 Diagnostic Solutions for Commercial Vehicles

Each W.EASY® diagnostic solution (including WABCO system diagnosis) consists of a basic package. The individual software / hardware required can then be added on an individual basis.

The W.EASY® diagnostic solutions are modular in design and can be adapted to meet the specific requirements of your workshop, whether you need an entry-level package or a complete solution.



BASIC PACKAGE

Components of the basic package:

- Diagnostic case



- Vehicle communication unit (VCI)



- USB cable
- OBD 16 pin J1962 cable
- Use of the product hotline
- On-site training on the diagnostic unit

ADDITIONAL HARDWARE

Hardware:

- Panasonic Toughbook CF-53 laptop
- Vehicle communication unit (VCI) with USB connection
- Extensive selection of diagnostic cables and connection adapters for towing vehicles, trailers, light commercial vehicles and buses from various manufacturers
- Robust diagnostic trolley
- Accessories, e.g. printer

MULTI-BRAND SOFTWARE

W.EASY® software packages:

- Towing vehicle
- Semitrailers/Trailers
- Light commercial vehicle
- Bus
- Complete (towing vehicles, semitrailers/trailers, light commercial vehicles, buses)

Benefits of the W.EASY® software:

- Quick, precise, reliable and clear results for all common vehicle brands.
- Clear menu structure
- Intuitive operation (full text search possible)
- Clear overview of simultaneous display of multiple functions and information saves time.
- Regular updates
- A complete licence or an individual licence can be purchased.

Technical data

Vehicle-specific test values, maintenance plan and module-specific component lists and wiring diagrams to assist trouble-shooting process. There is also more detailed system information from the WABCO INFORM database.

"Work measurements" module

As an option, we can provide extensive work measurements, including meaningful and transparent activities involved. The work measurements module also allows you to carry out calculations of combined working measurements. This means you do not need to charge your customers for duplicated calculations which are used in the relevant major jobs. You can also use the module to produce cost quotations, orders, invoices and supplier purchase orders.

Service

WABCO WÜRTH also offer comprehensive services, personalised advice, a product and vehicle technical hotline, user training and attractive leasing and financing products.

Contact

Use the following contact data if you have questions on W.EASY®, want additional information or if you want to purchase the product.

WABCO WÜRTH Workshop Services GmbH

Benzstraße 7, D-74653 Künzelsau

Tel.: +49 79 40/98 18 63-0

Fax: +49 79 40/98 18 63-5555

E-mail: info@wabcowuerth.com



More information can be found on the Internet under:
<http://www.wabcowuerth.com>

7.2 W.EASY® Trailer Power

W.EASY Trailer Power, the mobile and intelligent test kit for lighting and signalling checks on the trailer and/or the truck.



Art.-No. WW05 500 001

There are different possible areas of application:

1.) Lighting test of the trailer lighting (12V and 24V)

The individual lighting functions of the trailer (12V and 24V) can be comfortably controlled with the help of a remote control while walking around the trailer. Faulty lighting units are recognised via an intelligent defect detection system and displayed with the help of the LED indicator and a corresponding fault code in the display.

2.) Testing the light control signals on the truck (24V)

The individual lighting modules on the tractor can be tested one after the other to check that they are working correctly.

3.) PIN control (e.g. to activate the lift axle)

The "PIN control" function makes it possible to control the freely assignable PIN connections either with 24V or 0V (mass), e.g. to activate the lift axle.

4.) Supporting aids/measuring instruments

Supporting aids/measuring instruments to determine faults of defective lighting and cable breaks:

1. Voltmeter function to display voltage
2. Ampere meter to display the current
3. Notifications via fault codes

5.) Power supply of the trailer electronics (12V and 24V)

During trailer diagnosis, W.EASY Trailer Power supplies the trailer electronics with a steady voltage, thus allowing a stable diagnosis to be made. Furthermore, the error status of the brake control unit is displayed via the built-in ABS indicator lamps.

Other benefits of W.EASY Trailer Power:

- Mobile kit. This is also optimally suitable for service vehicles.
- Integrated battery allowing up to 8 hours of continuous use, depending on operating conditions.
- Integrated LCD display for simple and clear presentation of information (e.g. state of charge of the battery, fault codes etc.).
- Light test for LED lighting is supported.



Notes



WABCO
a **WORLD** of
DIFFERENCE

WABCO (NYSE: WBC) is a leading global supplier of technologies and control systems for the safety and efficiency of commercial vehicles. Founded around 150 years ago, WABCO continues to pioneer breakthrough electronic, mechanical and mechatronic technologies

for braking, stability and transmission automation systems supplied to the world's leading commercial truck, bus and trailer manufacturers. With sales of \$2.9 billion in 2014, WABCO's head office is in Brussels, Belgium.
www.wabco-auto.com